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# Private Exchange and State Grain Inspection

BY H. BRUCE PRICE



## MARKETING OF GRAIN LESSON 2

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THE MAN WHO CONDUCTS THIS LESSON



H. BRUCE PRICE

It is said by some that H. Bruce Price knows more about the economics of grain grading than any other man. Whether or not the accuracy of this opinion is questioned, there is no doubt but that very few men have made the consistent and thorough study of grain grading that has been made by Mr. Price.

Perhaps the most important part of his work is represented by an extended and thorough investigation made on the Minneapolis market. This investigation was to determine the actual effect upon the sale of grain made by inspection and the use of standard grades. Mr. Price spent many months in actual contact with the handling and selling of grain on the Minneapolis Board of Trade. Included in this first-hand knowledge is a great deal of information as to the effect of grading on prices.

But Prof. Price is familiar with grain grading, not only from the standpoint of those who handle grain on the terminal markets, but also from the standpoint of the local elevator operator and the farmer.

He was born on a farm in North Dakota, and his whole life has been spent in contact with some phase of the grain trade. During his early training and

work he was in contact with the terminal markets of the West. Later, he went to Yale University as instructor. While in Connecticut, he spent his time outside of his school duties in studying the markets of New Haven.

In the course of this study, he helped, very materially, in developing a market reporting service for the state of Connecticut. His work there was more from the standpoint of the consumer than from the standpoint of the market man.

So you see, he has a well-rounded experience which enables him to look at grain inspection from the standpoint of the producer, the market man, and the consumer.

Prof. Price is, at present, assistant professor of Agricultural Economics in the University of Minnesota. He came there from Yale, where he was instructor in Political Economy; previous to his work at Yale, he was instructor in Agricultural Economics at the Connecticut Agricultural College at Stores, Conn.

#### SUMMARY OF PROF. PRICE'S TRAINING AND EXPERIENCE

**EXPERIENCE:** Assistant Professor of Agricultural Economics, University of Minnesota, 1921-

Instructor in Political Economy, Yale University, 1919-21

Instructor in Agricultural Economics, Connecticut, Agricultural College, 1917-19

**MEMBER:** American Economic Association

**AUTHOR:** "Cooperative Buying by Farmers' Clubs, in Minnesota," 1916

"Marketing Butter and Eggs in New Haven," 1917

"Inspection and Grading of Grain" (Publication being arranged)

**STUDENT:** Dakota Wesleyan University, 1910-13

A. B. University of Wisconsin, 1914

M. A. University of Minnesota, 1916

Ph. D. Yale University, 1921

#### HOW TO STUDY THIS LESSON

This is a lesson you may find difficult. If you do not appreciate its importance after reading part of it, it may occur to you that a person in your particular situation would have little use for this knowledge.

No one having anything to do with the marketing of grain can be proficient in his work without this knowledge because the inspection of grain is the basis on which grain is sold on the terminal market, and without a doubt, traders are going to depend on grades in the future more than in the past.

Learn the Advantages of Inspection

Familiarize yourself thoroughly, therefore, with Part I. Spend at least one whole study period on this alone. Make sure that you not only remember but that you understand every one of the eight reasons why grain inspection is of advantage to the grain trade. That is the most important thing in Part I.

You should know in a general way, however, the history and development of grain inspection. That will help you to understand why certain features now exist in our grain inspection system.

Spend Two Study Periods on Part II

You ought to spend at least two study periods on Part II; not so much because of its importance, but because it is difficult to master these facts in a short time.

Test Yourself Before Answering Questions

After spending at least three study periods on the lesson, read the entire lesson through without a stop, then refer to the study outline and test yourself by giving briefly a summary of the various sections of the lesson either orally or in writing.

It always pays to write a review of the lesson. After you have written it without the help of the text of the lesson, the facts are sure to be more firmly fixed in your mind. After this suggestion has been followed, open your question envelope and proceed to answer the questions contained there.

Discuss This Subject With Your Local Buyer

By all means discuss the subject of inspection with your local grain buyer. Ask him if the grain he ships is inspected, and whether the inspection is satisfactory or not.

Ask his opinion as to the advantages of exchange inspection over state inspection. He may prefer one or the other, but discussing the matter with him will bring out some points that will fix the importance of these subjects in your mind more than will be done by any other process.

Ask him what advantages he believes he gains by having his grain officially inspected.

Ask him if he thinks grain marketing would be satisfactory without any inspection service at all.

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## PRIVATE EXCHANGE AND STATE GRAIN INSPECTION

BY H. BRUCE PRICE

You have learned in the previous lesson that efficient inspection requires the impartial and accurate application of standards whose tests are used by those who manufacture or use the product. This is just as true of grain as of any other class of products.

Grades provide a common trade language used in buying and selling.

Impartial and accurate inspection is therefore necessary to secure the confidence of buyers and sellers and to keep the grain marketing machinery moving smoothly. Useful tests for grading must be adopted if the grades have any significance or value to the buyers.

### PART I

#### ADVANTAGES OF GRAIN INSPECTION

The advantages of inspection to the grain trade are:

##### 1. The Better Utilization of Storage Capacity

Without an inspection system, the operators of public warehouses would be obliged to store the grain of different owners in separate bins. A loss of much costly storage capacity would thereby be incurred.

With an inspection system, on the other hand, the public warehouses may issue warehouse receipts for stored grain, and the owner is assured that he will later get an amount of grain of the grade or

quality that he stored. The lots of grain of the same grade that belong to different owners may, therefore, be placed in the same bin and the storage capacity may be utilized more fully.

### 2. The Easier Financing of Crops

Those who wish to borrow on stored grain or grain in transit, find that banks, under normal conditions, will accept a warehouse receipt or a bill of lading accompanied by a certificate of grade as security for a loan. A bank will not only loan more freely, but will commonly loan a larger proportion of the market value when the commodity's quality and value are so evidenced.

This is a valuable asset to grain producers, and it undoubtedly accounts in part for the better financing accommodations that grain merchants have enjoyed over those who market less highly standardized produce.

### 3. The Dissemination of More Accurate Market Information

The quotations of a market reporting service become more significant as the grades become more precise. For fruits and vegetables, for example, the lack of definite grades is a serious handicap to the development of a market reporting service, since those grades that are established frequently vary between different markets, and they do not always represent the same quality in the same market from day to day.

A quotation for A Grade Apples, or for No. 1 U. S. Standard Potatoes, is helpful market information, but it is less reliable than the quotation for No. 2 Dark Northern Wheat or No. 3 Yellow Corn, because the standards have less precision in statement and in application.

This service of an inspection system is particularly important in a broad market. It enables the shippers and buyers who reside at a distance

from the market to keep in close touch with, and to take advantage of market conditions. This tends to allay the suspicions of shippers and buyers and to prevent the friction that arises therefrom.

#### 4. The Encouragement of Future Trading

The setting up of an impartial authority to grade grain by certain tests that have been agreed upon, enables a merchant to agree in the present to accept goods in the future, for he is certain of receiving goods of the quality agreed upon.

Contracts for future delivery may be made in the absence of an inspection system when the buyer is relatively certain of the quality of product that will be tendered, but it is inconceivable that future and contract trading should have developed to its present importance without an inspection system. It is not within the scope of this lecture to discuss the economies of future trading - that is left to a later lesson. Suffice it to say, that without inspection, the stabilizing and risk-taking services of future-trading would be seriously impaired.

#### 5. More Effective Regulation of Market Practice

In the absence of an inspection system, and, to a lesser degree when the grade descriptions are not specific or are not rigidly enforced, questionable marketing methods may be practiced.

Foreign materials of little value are sometimes mixed with grain of superior quality and the mixture sold as being that of the best grain. Or, grain that is represented by warehouse receipts may be adulterated with mixtures of inferior quality. In order to standardize marketing practice and to protect the holders of warehouse receipts, exchange and state inspection has invariably provided for the supervision of the mixing, the grading, and the delivery of grain that is secured by warehouse receipts.

Cotton inspection has served a similar purpose in the cotton trade, and the same end is secured by federal cotton inspection provided by the Cotton Futures Act of 1914.

#### 6. The Reduction of Marketing Costs

The greater economy in the use of storage and credit facilities, the intensification of competition through a market reporting system that extends the radius of the market, the working of the market with less friction and misunderstanding due to the use of a common trade language, and the reduction of risks by hedging in the "futures" market - all these help to stabilize the market and thereby reduce the costs of the various necessary marketing services.

#### 7. The Stimulation of Trade

Anything that breaks down the barrier of trade suspicion increases the supply of produce and the demand for it. Inspection and standardization of products do this.

In the export trade, foreign grain buyers favor those markets, other things being equal, that have the most reliable inspection. Markets that have manipulated their grain grading to supposedly help the market or to assist a group of dealers who get into a difficult situation in filling their grain contracts, have usually found the demand for their grain switching to other markets and their foreign markets closing to them.

In cases where inspection has been abused persistently and flagrantly, foreign buyers have been known to use concerted action in refusing to buy further until the abuse was rectified. On the other hand, those countries and markets that have maintained uniform grading have enjoyed a continuously good foreign demand.

Inspection Aids American Exporting - An additional advantage of inspection is the greater control which the shipper exercises over his grain exports, an advantage to the exporting country in that its exporters have greater bargaining power in making final settlement. The grain of the United States and Canada, the only two grain exporting countries that have grain inspection, is exported on "American or Dominion inspection certificate final."

That is, the foreign buyer agrees to accept the American or Dominion inspection certificate, and the quality of the grain is not subject to arbitration at the European port of destination.

Grain exports from other countries, on the other hand, are sold on a "Fair Average Quality" of the season's shipments, and the quality is subject to arbitration at the port of destination. Although the arbitration committees of the European grain trade associations may try to act fairly in arbitrations involving quality, the American and Canadian exporters have the advantage over exporters in other countries. The responsibility of deterioration during the time of transportation does not rest on them. They are more certain of the price to be received. And they are less subject to loss from rejected shipments when market conditions develop unfavorably to the buyers between date of purchase and time of final settlement.

The advantages of inspection to the domestic trade are less apparent. Yet, it stands to reason that buyers and sellers favor those markets that have inspection rather than those that do not, and that the preference for a market is in direct relation to the reliability of its inspection.

#### 8. How Inspection Increases Prices

As the risks of uncertain grading decrease, the cost of marketing grain is reduced and the dealer can pay the producer a better price or sell to the

consumer at a lower figure, or both, in the long run. Production and consumption are thereby stimulated, and trade and industry prosper, an advantage which agricultural producers and consumers share mutually.

#### EARLY DEVELOPMENT OF GRAIN INSPECTION

Grain inspection developed earlier than the inspection of other farm products. Its more universal demand as a food, its greater durability, and its greater uniformity of quality from season to season, doubtless account in a large measure for this. Of the grains, wheat inspection, due to its wider demand as a food, its greater intrinsic value, and its less perishable character, developed first. Corn, oats, rye, and other grain inspections were established as transportation developed and as a large surplus of them was produced to be marketed through central wholesale markets.

#### Inspection Not Needed in Colonial Times

The development of grain inspection dates from the middle of the nineteenth century. During the colonial and the early national period, the grain trade of the United States was chiefly local. The flour milling industry was not centralized. Flour was made in thousands of small country mills. Some grain was exported, but the total was never large. Most of the grain was exported as flour or meal.

The United States census of 1860 states that from 1830 to 1845, 90% of the wheat exports were in the form of flour, while a somewhat smaller, although large proportion of the corn was exported as meal. The same authority shows that from 1790 to 1817, the wheat exports did not exceed one and one-half million bushels during a single year, and that the exports of corn never reached three million bushels. In no year did the total grain exports reach five million bushels.

As compared with the volume of grain in the domestic and foreign trade at the present time,

these figures are very small. In fact the largest markets of that early period handled a volume of grain that did not exceed the volume of many of the prosperous country markets of today.

Under those conditions, the possibilities for developing an inspection and grading system were obviously limited. The volume of grain did not warrant the expense. And the hand methods of handling grain in bags did not permit quick and cheap examination.

#### How Government Land Policies Were Changed

During the second quarter of the nineteenth century, the grain market gradually lost its colonial characteristics. Important among the factors causing the transformation was the gradual change from the original policy of selling public lands to swell the public revenues to a policy of disposing of the land to encourage settlement.

Originally the public lands were sold at auction in tracts of not less than 640 acres. Beginning in 1801, however, the terms of sale were made more attractive to the settler with a small amount of capital. A credit policy was first introduced. Then the minimum size of tracts sold was reduced from 640 acres to 160 acres, to 80 acres, and finally to 40 acres. The sale price was likewise reduced from \$2 to \$1.25 per acre.

The first important milestone in this change of policy was the Preemption Act of 1841, which withdrew the public lands from sale to the public and reserved them for actual settlers at \$1.25 per acre, while the last important land mark was the Homestead Act of 1862, which enabled the actual settlers and cultivators of land to obtain title to 160 acres of public lands without charge.

#### New Lands Opened to Large Scale Production

Bear in mind now that the public lands that were open to settlement during the period lay roughly between the Alleghany Mountains on the East

and the Mississippi River on the West, embracing that important grain producing region now occupied by Ohio, Kentucky, Indiana, Illinois, Michigan, and Missouri.

Remember also, the prairie character of this region with its broad, rolling, and fertile lands admirably suited to the large scale production of grain and contrast it with the mountainous, stony, and frequently barren lands of the Middle Atlantic and New England districts where small, irregularly shaped fields are the rule. Before the tremendous latent agricultural production in these new lands could be realized, however, new methods of production, better transportation, and new markets had to be found.

#### How Inventions Stimulated Greater Production

The inventors of America rose to the opportunities and the demands of the times by inventing farm machines that transformed production methods through eliminating hand work.

John Deere made his first steel plow from an old saw blade in 1837. The first successful reapers were patented by Obed Hussey in 1833 and by Cyrus McCormick in 1834. About this time, the grain thresher and separator was substituted for the flail, and the corn cultivator superseded the hoe, while a general improvement in wagons, harrows, and other farm implements took place.

To one accustomed to present methods of grain production in the grain belt, the mammoth saving in labor brought about by these new machines is hard to comprehend. Studies of the labor cost of production in 1830 and in 1900 show, however, that an economy in labor was realized by the substitution of horse power in the following big percentages: 95.7% for barley, 60.9% for corn, 89.2% for oats, and 94.5% for wheat.

Lack of Transportation Hampered Development

After 1790, people moved rapidly westward over the Alleghany Mountains and spread out over the western prairies, furnishing the labor to develop the agricultural resources. But the lack of cheap transportation facilities retarded the progress some.

Waterways were then the only highways for agricultural commerce. Railways were unknown, and transportation by wagon and team was too expensive to permit an extensive trade.

The extension of slavery in the South and Southwest after 1815 created a demand for the food products of the North. A thriving trade sprang up on the Ohio and Mississippi rivers. The North exchanged meats, hay, flour, and grain for sugar and manufactured goods that had been shipped from New England by way of the South. Due to the comparative high cost of river transportation, however, much of the grain was shipped as flour or meal.

The Erie Canal Started Commerce East

It was not until after the completion of the Erie Canal, from Troy on the Hudson River to Buffalo on Lake Erie, in 1825, that there was any appreciable growth in the traffic in grain. And even this linking of the Atlantic with the great inland waterway of the Great Lakes did not stimulate the commerce in grain as much as you might expect. Its great impetus awaited later events.

The Irish potato famine of 1846-47 created a new demand for American breadstuffs which was satisfied by the West which had now become the principal surplus wheat and corn producing section of the country.

The most direct route as well as the most satisfactory from the standpoint of climatic conditions was through the Erie Canal. The shipments of grain over this waterway increased three fold in 1846 and four fold in 1847. While this stimulus was

only temporary, the removal of the English tariffs on grain imports in 1846 and the growing manufactures of the East created a demand for the import of breadstuffs that caused a continuous growth of the eastward commerce in grain.

#### Why the West Specialized in Grain

As a result of these changes in agriculture, the center of surplus grain production had moved from the Atlantic Coast to the Ohio Valley by 1840. The East, being unable to compete successfully in grain production, directed its energies toward manufacture and commerce and became increasingly dependent upon the West for its food supplies.

The wheat production of New England was less than one bushel per capita in 1840. For the Middle Atlantic states of New York, Pennsylvania, and New Jersey, it was six bushels per capita. While for the East Central states including Ohio, Michigan, Indiana, Illinois, Wisconsin, and Kentucky, it was nine.

The production per capita of the first two sections has gradually decreased since that date, while that of the East North Central has gradually increased, having reached its maximum per capita production of 18.7 bushels in 1880. As the population continued to move westward, the Upper Mississippi Valley and the Missouri Valley became important regions of surplus grain production.

#### The First Important Primary Grain Markets

Marketing becomes important only when there is a surplus of goods to be exchanged. Since it was in the Ohio Valley and the Upper Mississippi Valley that the first large surplus grain producing area developed, it is in this section of the country that we would expect the large markets with important marketing problems to appear first.

Cincinnati, on the Ohio River in Southern Ohio, and St. Louis, on the Mississippi River in South-eastern Missouri, were both on the trade route

between the North and South. And, being in the region of heavy grain production, they became the first important primary grain markets in the West. (A primary market is a market which receives large quantities of produce direct from country markets.)

As the currents of trade moved eastward, the lake ports assumed greater importance. The river markets continued to grow, but, relative to the markets on the northern route ,their significance became less and less.

#### Why Chicago Became the Largest Primary Market

Chicago and Milwaukee at the head of Lake Michigan became the important markets on the north-ern trade route. The excellent water and rail transportation facilities at the head of Lake Michigan that tapped the grain region of northern Illinois, Iowa, and southern Wisconsin, gave Chicago an early lead over competing markets in volume of grain handled, which it has maintained to the present day.

The first shipment of grain of 38 bushels was made from Chicago in 1838. In 1850, receipts were slightly over one million bushels; while in 1855, they were nineteen and one-quarter million bushels. In 1860, 34 million bushels were shipped. No such phenomenal growth had been experienced by any other grain market.

#### First Grain Inspection System Organized at Chicago in 1856

In 1860, Chicago's receipts were three times those of its chief competitor, St. Louis. It is, therefore, not surprising that Chicago introduced modern grain inspection to the United States and to the world.

Previous to the incorporation of the Chicago Board of Trade in 1849, all grain transactions were made on the basis of samples shown, or of grain offered directly from farmers' wagons. The rapid

extension of the market area, and the phenomenal growth of the volume of grain in the 50's, soon demonstrated the inefficiency of sample trading in a market where millions of bushels of grain were being merchandised, stored, and financed.

The Board of Trade, accordingly, exercised its charter privileges to grade grain by promulgating grain standards for wheat and appointing grain inspectors in 1856.

#### DIFFICULTIES WITH INSPECTION SERVICES

This first inspection system did not work as smoothly as had been hoped. There was no chief inspector, and consequently no uniformity in grades. Some inspectors were apparently lax, if not dishonest, in their inspections. And some warehousemen did not give the system their support.

The result was, according to a pioneer member of the Board of Trade, that Chicago spring wheat in the New York market was five to eight cents per bushel below the price of Milwaukee wheat.

The Board of Trade could not permit this situation to continue. Accordingly, in 1858, it reorganized its inspection department. A chief inspector was put in charge and was made responsible to the Board of Trade for the grain grades and the settling of disputes over the grades. The grades were revised, weight per bushel being the chief test, and the warehousemen signed an agreement with the Board of Trade to observe the rules of the new system. In short, there was laid in this reorganization, the foundation of the present American inspection system.

#### Why Some Mistrusted Inspection Authorities

From the beginning, grain inspection has struggled with two sets of problems; the one concerns the grade requirements and the policy of inspection; the other concerns the organization and

control of this marketing function. The latter has commanded the most attention.

During the formative period of the grain markets, the standards of business methods of grain dealers were not highly developed. The rules of conduct for their members were being formulated by the grain exchanges. The occasional failure of the exchanges to prevent the questionable trade practice of a member, and the existence of keen competition between the buyers and sellers for the control of the exchange functions, created much suspicion and mistrust.

Accordingly, down to the enactment of the Grain Standards Act of 1916, which created the federal supervision of grain inspection, the question has been, "Who should control inspection and how should it be organized to insure that control?"

#### The Change From Private to Government Inspection

Grain inspection has passed through four stages of control. The first stage is private inspection; the second, exchange inspection; the third, state inspection; and fourth, federal supervision.

Inspection given by an individual or an association probably is more important in the history of most of our grain markets because it represents the beginning of grain inspection in many markets.

At Minneapolis, the first inspection appears to have been given by the Millers' Association. For a number of years, Philadelphia and Boston grain exchanges arranged with a private inspector to grade the grain arriving at those markets, the inspector agreeing to use the grain standards established by the grain exchange in return for the fees which he himself collected.

#### Why Private Inspection is not Enough

The very limited control which grain dealers as a class, exercise over private inspection, and the opportunity which it affords the inspector to

grade grain to his own financial advantage, caused most grain exchanges to create an inspection department as soon as they were organized. This superseded the private inspection in most markets.

Private inspection has, therefore, been an unimportant factor in the large grain markets. In fact, the states in creating state inspection, frequently prohibit it by law. The prestige which federal supervision affords to private inspectors has caused private inspection to spring up in some of the smaller markets which previously had no inspection. While this is a valuable service to the grain trade, from the standpoint of the proportion of the trade served, it will probably continue to play an insignificant role.

#### Why Inspection by Exchanges was Unsatisfactory

In many grain markets, including Chicago, inspection was introduced by the grain exchange. A grain exchange is a private corporation whose members are interested in the grain trade or an allied industry.

The representation of all the terminal market grain interests in it, makes it the logical organization to introduce inspection or to succeed private inspection, since the balancing of the interests of one group against the interests of other groups, tends to insure impartial administration of grading. Moreover, being controlled by themselves, grain merchants naturally have more confidence in it.

One important grain interest, the producer, is not represented in exchange inspection. However, it is often maintained that the commission merchant gives the producer and shipper representation. Doubtless the interests of many commission dealers are identical with those of their shippers. But there is no certainty that the interests of all grain merchants are identical with their shippers. Moreover, commission man representation is not

equal to the direct representation enjoyed by members of the exchange.

When to these facts are added the effect of the publicity given occasional warehouse and inspection abuses, you can understand the cause for dissatisfaction with exchange inspections which producers and country shippers sometimes have.

Undoubtedly, most of the trade abuses that existed when exchange inspection was the prevailing type are now prevented. Unquestionably, the country shippers in the beginning were often ignorant of grades. Thus, it was easy for them to believe that their grain was misgraded at the terminal market. The fact remains that the exchange organization was not sufficiently comprehensive to give all trade interests representation. So long as it could not do this, it failed because it could not command the confidence of producers and country shippers.

## PART II

### STATE INSPECTION AND HOW IT OPERATES

State inspection was the next logical stage. In the last half of the last century, when most of the state inspections were created, grain inspection was considered a local rather than a national problem. It was difficult to arrange effective producer representation on the grain exchanges even though the exchanges were willing. Hence the state organization offered the best solution, because it represented all groups within its boundaries.

Exchange inspection was superseded in a few years by state inspection in all of the important primary markets of the principal grain producing states.

Illinois took the lead in 1871 in adopting state inspection (which by the way is limited to Chicago and East St. Louis at the present time). Minnesota followed its example in 1885; Missouri in 1889;

Wisconsin in 1895 (limited to Douglas County in which Superior is located); Kansas in 1897; Washington in 1911; Montana in 1913; North Dakota in 1917; Oregon in 1917; and California in 1921.

#### Organization of State Inspection

State inspection differs from exchange inspection chiefly in its source of authority, state inspection deriving its powers from the law, exchange

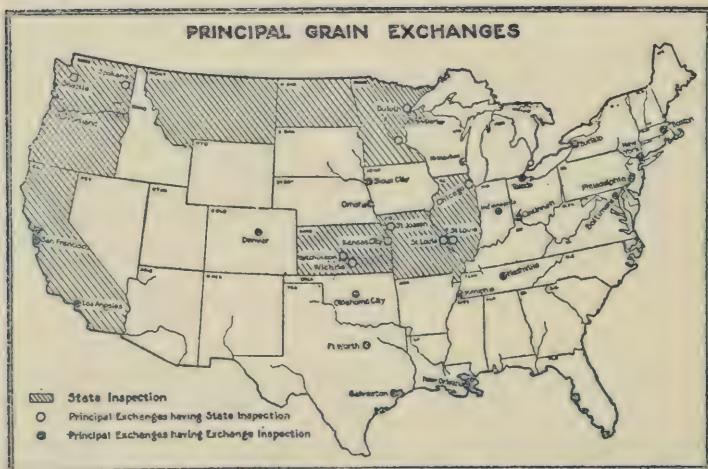


FIGURE 1. AVAILABLE STATE AND EXCHANGE INSPECTION  
The shaded areas show those states having state inspection in 1920. You will see that not all of the important grain growing states have state inspection

inspection exercising a power granted in the charter of the exchange. Their organizations are similar. Each has an inspection department and an appeals department. In Minnesota, the state inspection department is a division within the Railroad and Warehouse Commission. The commission appoints a chief inspector who is responsible for the grades of the inspection department and approves the appointment of deputy chief inspectors, inspectors, samplers, and helpers appointed by the chief inspector.

The chief inspector is appointed for two years and gives a bond of \$10,000 as a guarantee of faithful and impartial performance of service. His office is in St. Paul. Since Minneapolis and Duluth are each important grain markets, an inspection office and laboratory is maintained in each city, a deputy chief inspector being in charge of each office.

A merit system has been used since 1900 in making appointments. It works similarly to appointments by civil service except that there is less formality in hiring and discharging employees. At the same time, it encourages efficiency, since promotion is secured by faithful service and since greater proficiency in grading is obtained by the long tenure of office that is thereby encouraged. Most of the inspectors, including the chief inspector, have worked with the inspection department for many years.

#### Boards of Grain Appeals Establish Minnesota Grain Standards

There are two Boards of Grain Appeals: one is located in Duluth; the other in Minneapolis. Each Board has three members who are appointed by the governor for a term of three years. One member of each Board retires each year.

The functions of the Board are two-fold. In the first place, they establish the grade standards for Minnesota. The Boards hold a joint meeting at the beginning of each crop year and decide upon the grade requirements for the ensuing year. This was an important function before the United States Department of Agriculture promulgated standards for wheat, corn, and oats. Now the meeting is chiefly a formality to adopt the federal standards.

#### How Appeals on Grading may be Made

The Boards also pass upon the grades of the inspection department when requested by a representative or owner of grain, and, since its decision

regarding the grade is final so far as the state inspection is concerned, the Boards theoretically determine the standards of grading in Minnesota.

Here, again, federal supervision has reduced the importance of this function, since an appeal may be made from a grade of the state inspection department on wheat, corn, and oats direct to the federal supervisor. Or an appeal from the grade of the Board of Grain Appeals may be made to the federal supervisor where the grain involved is in interstate commerce. This means, then, that the standards of grading for a very important part of the principal grains are determined by the federal supervisors.

Since the Board of Grain Appeals uses the same standard of grading for all shipments of a given grain, it is evident that for practical purposes, the standards for wheat, corn, and oats are ultimately determined by federal supervisors. However, the Boards still render the desirable service of providing a check on the grading of the inspectors of grain which is in intrastate commerce, the original grade of which cannot be appealed to a federal supervisor.

#### How the Minnesota State Inspection Operates

An analysis of the working of an inspection department will clarify the description of the organization given above. Remember that this is a description of the working of Minnesota inspection. In details, it may vary from other inspection departments. In principle it is the same. The first work of an inspection department is to secure a sample of the grain. A corps of samplers is stationed in each terminal railroad yard to secure samples of grain as soon as it arrives. To facilitate the work, the railroads reserve portions of their yards for grain receipts. Samplers are also stationed at the terminal elevators. To prevent delay and congestion in the terminal yards, sampling stations are maintained at towns outside of

Minneapolis and Duluth where samples of grain are obtained and expressed to the inspection office at Minneapolis or Duluth. Grain is thus often graded and some times sold before the car reaches the market.

This practice of sampling at outlying stations is peculiar to Minnesota. Other markets have studied it with a view to its introduction, but it has not been universally adopted by large markets because of the possibility of the sample to change in quality or condition during the time of transportation, and so become non-representative of the shipment.

The Illinois Inspection Department has attempted to solve the problem at Chicago by establishing sub-inspection offices at four of the principal grain terminals. It is difficult, however, to maintain uniform grading in five different laboratories.

The Minnesota Inspection Department, by using a specially prepared container to protect the sample from heat, light, and atmospheric conditions, has secured fairly satisfactory results. In fact, several years experience with the sampling at substations has proved so satisfactory that there is little probability of its being abandoned.

#### How the Grain is Sampled

During the busy season ,the samplers begin work at daybreak. They are accompanied by a chief sampler who supervises and assists with the sampling. One member of the corps prepares the car for sampling by breaking the seal. He records the seal number. He also examines the car for leaks and records its condition.

When the car is ready for sampling, a sampler enters with a double-shell probe, about five feet long and two inches in diameter. This he thrusts into the grain. By turning the inner shell of the probe, holes are opened on the side, through which

the grain pours into a series of compartments. By another turn of the shell, the compartments are closed.

The probe is then withdrawn and the grain poured onto a cloth for examination, after which it is put into an individual canvas bag to be sent to the inspection office.

#### Why Fair Samples are Assured

Correct sampling is an essential prerequisite to efficient inspection. Inspectors are, therefore, instructed to make not less than five probes and to make as many more as is necessary to obtain a representative sample. Five probes appear to be a minimum number for carloads in order to guard against non-representative samples when cars are loaded unevenly, or to detect the loading of cars in such a way as to conceal the real quality of the grain.

The sampler notes, on a certificate, the number of the car and such other information as may be useful in identifying the report. In case the car is fraudulently loaded in such a way as to deceive the buyer (this is known as a "set-up" or a "plugged" car), an additional sample is taken of the inferior contents, and a notation made of the location and amount of inferior grain.

When the state sampler has completed his work, private samplers in the employ of parties interested in the grain, enter the car to secure a sample that is used as a check on the sampling of the state sampler, and that is displayed to prospective buyers on the floor of the trading room. In order that the private samplers may not interfere with the official sampling, they are prohibited from working with the state samplers.

After the sampling has been finished, the car is resealed with a state seal, the number recorded, and the samples sent to the inspection office.

Indoor Inspection a Recent Development

Prior to 1904, all grain was graded at the car door. A small kettle and scales for testing weight per bushel, a probe, and some bags for the samples were the only inspection equipment necessary at that time, and this equipment could be easily carried from car to car. But the varying conditions of heat, light, and temperature under which inspectors worked, made it difficult for them to grade uniformly. So indoor laboratories where the working conditions could be controlled, were tried. They proved so successful that other inspection departments soon adopted the plan, and now, every important grain market has an inspection laboratory.

At the inspection laboratories, the inspectors are provided with sieves, weighing devices, and other equipment for making the proper tests. If, after having made the tests, the inspector is in doubt, he consults the deputy chief inspector. In this way, uniform grading is maintained in the laboratory. The grade is indicated on the inspection certificate which is then initialed by the inspector and recorded in the office before being surrendered to the representative of the grain.

What to do if Dissatisfied with the Inspection

In case of dissatisfaction with the grade, the representative or owner may request a re-inspection before the identity of the grain is lost or before it leaves the market. The deputy chief inspector grades the grain on a re-inspection, using the original sample which is preserved for such a contingency. Or, a new sample may be secured if the representative so requests. The charge for re-inspection is \$2 if the original grade is sustained, otherwise it is free.

If there is still dissatisfaction with the grade, an appeal may be made to the Board of Grain Appeals or to the federal supervisor. These au-

thorities secure new samples to grade an appeal. The charge is \$2 for an appeal if the grade appealed from is sustained, otherwise it is free.

#### State Inspection More Representative

What can be said in favor of state inspection as against private or exchange inspection? Its merits are three-fold.

First: It has given representation to grain producers and country shippers whose lack of confidence in exchange inspection was a constant source of market friction and political discontent.

The inclusion of these groups in its control, however, has sometimes had the unwholesome effect of making the inspection policy subservient to the producers' interest. In such instances, the situation from the standpoint of efficient grain marketing, is as unsatisfactory as the dominance by any other trade interest. Confidence in inspection is destroyed when it is liable to the exploitation of any one market group. In principle, the extension of the inspection organization to include all grain groups is right, since it insures more impartial inspection by the counterbalancing of market interests.

Second: State inspection has been more aggressive in the development of grain standards and in the introduction of improved devices. The introduction of the inspection laboratory, the double-shell sampling trier, the wild oat separator, the experimental laboratory, and other improved devices must be credited to the state inspection departments.

Third: State inspection has furnished a large fund of information about the organization of a public inspection department that has been valuable to establish federal supervision and that will contribute to the perfecting of a national inspection system.

THE DRAWBACKS TO UNIVERSAL STATE INSPECTION

On the other hand, state inspection, by being organized on a territorial basis, has created a problem of conflicting jurisdiction at three of the principal grain markets which it has thus far been unable to solve.

The problem first appeared at Kansas City. What is commonly referred to as the "Kansas City grain market" includes both Kansas City, Missouri, and Kansas City, Kansas. The warehouse and terminal transportation facilities are about equally divided between the two cities, while all of the grain is sold on the Board of Trade in Kansas City, Missouri.

While the Kansas City Board of Trade rendered the exclusive inspection service, the two cities were considered as a single market. When a Missouri state inspection department was established in 1889, however, it had no authority to grade grain arriving in Kansas City, Kansas. This left the half of the market in Kansas to be served by Board of Trade inspection and the half in Missouri to be served by state inspection.

Two years later the Kansas Warehouse Act established a Kansas state inspection department. This was only a half-way measure. It was not until 1897 that a full-fledged inspection system was provided by law. Inspection not being compulsory, the number of inspections was too small to make the system self supporting. In 1911, however, more aggressive administration of inspection wishing to make the service self sustaining, raised the inspection fees and made inspection of all grain arriving at Kansas City, Kansas, and of all grain at the terminal warehouse compulsory.

Duplicate Inspection in the Kansas City Market

The warehouse companies objected to this new policy, since it would impose an additional cost

upon the grain, and it would result in two inspection charges for that part of the grain arriving in Kansas City, Kansas, and subsequently transferred to Kansas City, Missouri. The Missouri inspection rules also made the inspection of grain arriving at Kansas City, Missouri, compulsory. The controversy was taken to the courts where the warehousemen contested the right of the Kansas officials to make inspection.

The decision of the Supreme Court was a victory for the grain trade. The Court interpreted the law as providing for compulsory inspection of only that portion of the grain going into or coming out of public warehouses, and it defined a public warehouse as one that mixes the grain, or reserves the right to mix the grain of different owners.

The warehousemen had already asked to have their license as public warehousemen revoked so they were no longer subject to Kansas inspection. As regards the grain that does not go into storage, the inspection department can grade only such grain as is not marked so as to indicate that no inspection is desired. Shippers to Kansas City, Kansas, not wishing their grain graded, may therefore, be relieved of inspection charges by indicating on the bill of lading or on the grain car that no inspection is desired.

#### State Inspection Still Confusing at Kansas City

There is still dual inspection in the market, the result being that there are double inspection charges on some grain moving from Kansas into Missouri. Any value that the voluntary feature of the system may have had is partially lost by the prohibition of any inspection other than Kansas state inspection in Kansas. The Kansas City Board of Trade has endeavored to get each inspection department to accept the inspection certificates of the other, but to no avail. Federal supervision has also been unable to effect a compromise.

State Inspection at Duluth and Superior is Confusing

A similar condition exists at the head of the Great Lakes. Duluth and Superior, because of their location, are commercially one, yet they are divided by a boundary line which places them under the jurisdiction of different states.

Nearly all of the grain shipped to Superior, Wisconsin, is sold on the Duluth Board of Trade in Minnesota. There is a board of trade at Superior which the city has encouraged in the hope of attracting grain trade to Superior, but it is an impotent organization which sells most of the little grain that it receives on the Duluth Board of Trade. The favorable location of Superior, however, has resulted in about half of the storage facilities at the head of the Great Lakes being located there.

In the absence of any board of trade or Wisconsin inspection at Superior, the Duluth Board of Trade graded all grain arriving at Superior prior to the adoption of Minnesota State inspection in 1885. When the Minnesota inspection superseded the board of trade inspection at Duluth, the Superior elevators asked the state of Minnesota to extend its inspection service to Superior.

Technically, the Minnesota department had no jurisdiction at Superior which is located in Wisconsin, but, in order to accommodate the elevators which were also transacting business in Minnesota, it consented to extend the service to Superior, with the understanding that the elevators and merchants thus accommodated would conduct their business in strict accordance with the Minnesota laws, rules, and regulations, and also follow the rules of the Duluth Board of Trade.

Inspection Troubles at Superior

The business interests of Superior, which were jealous of Duluth's monopoly of the grain trade at the head of the Great Lakes, were dissatisfied with

the arrangement and sought to discontinue Minnesota inspection at Superior. By thus securing independent regulation of the grain market at Superior, these interests hoped to attract the grain trade to that city.

This object at once became apparent when Milwaukee, a grain market of considerable importance, was exempted from the provisions of the law. Granting that the terminal elevators at Superior needed regulation, this could have been secured by a warehouse law permitting the use of Minnesota inspection certificates at Wisconsin elevators and thus have obviated the division of the market into two inspection districts.

An inspection department was organized at Superior by the provisions of this law the following summer, but after six weeks, it was discontinued and Minnesota was again requested to extend its inspection service to the grain trade at Superior.

The request was granted, and there was no further trouble until a Wisconsin citizen ill-advisedly had the Minnesota inspectors who were working at Superior arrested and brought before a Superior court for trespass.

No action could be secured against the inspectors as they were working under an agreement with the Superior grain interests, so the case was thrown out of court. This incident occurred in 1902.

Two years later, the Wisconsin Legislature enacted another warehouse and inspection law providing for grain inspection at Superior and the following year the market at the head of the Great Lakes was burdened with two inspection systems.

#### How Wisconsin Law Hampers the Superior Market

The Minnesota grain interests opposed Wisconsin inspection on the ground that it was unnecessary. Practically all grain arriving at Superior is sold on the Duluth Board of Trade on Minnesota inspection.

This necessarily restricts Wisconsin inspection to a negligible part of the grain arriving at the head of the Great Lakes and confines its work almost entirely to grading the grain into and out of the elevators at Superior.

The law makes the inspection of all grain going into or out of Wisconsin elevators compulsory. If Wisconsin inspection had been made optional, it would have imposed no costs upon the grain trade other than those for which the grain merchants considered themselves repaid.

But the regulation for compulsory inspection of all grain into and out of Superior elevators, created a double inspection of the grain that had first been graded by the Minnesota inspectors for sale on the Duluth Board of Trade and then by the Wisconsin inspectors for storage in Superior elevators. Wisconsin, instead of aiding its own elevators, had thus given them a handicap in competition with Duluth elevators in the form of additional inspection costs.

#### Inspection Cost Paid by Shippers and Elevator Operators

Ordinarily, the inspection costs are a lien upon the grain, and the shipper bears the expense, but where there are two inspections, as at the head of the Great Lakes, the shipper ordinarily bears the first and the elevator operator bears the second, since the second inspection is not called until the grain has been sold and is ready for storage. It was, therefore, the Superior elevators that felt the burden of Wisconsin inspection.

The inspection fee, per car, it is true, is small and the additional cost of an individual car appears insignificant, but when you consider that Superior had an elevator capacity of over 18 million bushels, and that one company received and shipped 20 million bushels of the 1914 crop, you can appreciate the importance of a small additional expense on the volume of grain that passed through this

market. Besides, a dual inspection system causes disputes and delays which may prove costly.

The Wisconsin elevator interests, accordingly, refused to abide by the provisions of the law and attacked its constitutionality on the ground that it was unnecessary and a restraint of interstate commerce. They secured an injunction from the federal court restraining the Wisconsin inspection department from grading grain until the matter was settled in the courts.

Unfortunately, no decision was rendered to determine the relation of the two state departments to this market, for a compromise was effected between the Wisconsin department and the elevators, and the Wisconsin inspection was resumed January 1, 1908, with certain restrictions.

#### Much of Duluth Grain Inspected Twice

Rather than prolong the costly litigation, both the trade interests and the Wisconsin inspection department made concessions. Briefly, the inspection department agreed to accept Minnesota inspection certificates for wheat and flax going in or out of Superior elevators. The elevator companies conceded the right of the Wisconsin inspection department to grade grain at Superior and, in return for the concession of the Wisconsin department, they promised to accept Wisconsin inspection on coarse grains at Superior and to reimburse the state for its loss from litigation. This agreement is still in force.

There is, therefore, no duplication of inspection on flax and wheat, but, since most of the grain is sold on the Duluth Board of Trade on Minnesota inspection, coarse grains that go into the Superior elevators generally have a double inspection.

Shippers have the privilege of calling for Wisconsin or Minnesota inspection, or both. The choice is usually left to the grain receiver who

invariably calls for Minnesota inspection, which the members of the grain trade consider more uniform and which is the adopted basis for buying and selling at Duluth.

An occasional shipper, hoping to secure a better grade thereby, requests Wisconsin inspection. The similarity of the standards of the inspection departments is such that there is seldom anything gained by the double inspection. This situation discourages an extensive use of the Wisconsin inspection by shippers and obviates the delay and congestion of traffic that might otherwise develop when the movement of grain is heavy.

#### Double Inspection Increases Marketing Costs

There appears to be little justification for the existence of Wisconsin inspection at Superior. It is indeed a check upon the Minnesota inspection at Duluth, but this scarcely warrants the Superior inspection in view of the disadvantages which it involves. It destroys the unity of the market, creates delay in the crop movement, friction among the trade interests, and general dissatisfaction. It is the source of duplication of service which increases the cost of marketing and creates an interference with legitimate and prosperous trade.

#### ATTEMPTS TO CORRECT THE FAULTS OF STATE INSPECTION

A somewhat similar situation is also found in the relation of North Dakota and Minnesota. Duluth and Minneapolis are the natural outlets for North Dakota grain, but as they are both located some distance from the Minnesota-Dakota boundary line, there is little possibility of North Dakota establishing a state inspection system to compete with Minnesota and to attract grain to Dakota markets.

The governor of North Dakota has been authorized by a Minnesota law to nominate one member of the

Wisconsin Grain Commission. This commission serves as the Board of Grain Appeal at Superior. North Dakota does to this extent compete indirectly with Minnesota inspection.

#### Dakota Producers Criticize Minnesota Inspection

This is rather ineffective competition. The North Dakota grain producers and shippers are still obliged to sell their grain in Minnesota markets in whose inspection they have no voice.

There appears to be a rather general mistaken impression among the North Dakota grain producers that the inspection is controlled by the grain interests of Minneapolis and Duluth, notwithstanding the fact that the Minnesota grain producers have a voice in Minnesota inspection and have much influence in the determination of the inspection policy.

The Board of Grain Appeals and the Minnesota inspection department follow a policy of favoring the grain when there is any question regarding the grades, which is an advantage to the country shipper rather than to the buyer.

#### No Evidence of Discrimination in Inspection Service

There is also a widespread belief that North Dakota grain is discriminated against in Minnesota markets notwithstanding the fact that the inspection department has employed every precaution to keep its inspectors from learning ownership, point of origin, or destination of the grain that they grade. Both public and private interests have investigated the inspection service, and have found no evidence of discrimination. If such a condition exists, it is obviously unintentional.

It may be that the small number of Minnesota grades does not permit of a sufficiently fine classification of the wheat to distinguish it from other wheat produced under less favorable conditions of

soil and climate. On the other hand, the criticism of grain grades has not been quieted by the introduction of federal wheat standards which have 18 grades instead of the six which Minnesota used, and which have a Dark Northern sub-class of six grades to provide for the hard glutinous wheat produced in regions similar to North Dakota.

Dakota Legislature Attempts to have Inspection Simplified

This situation has been a constant source of friction and misunderstanding between the North Dakota producers and the grain organizations at the terminal markets. In some instances, it appears to have been aggravated by bad leadership on both sides.

Since North Dakota has no jurisdiction over grain in Minnesota markets, investigations, resolutions, and state inspection have been resorted to. The first move appears to have been made by a committee of North Dakota bankers which made a hasty investigation of grain marketing at Minneapolis and Duluth in 1906 and reported glaring abuses.

The report was not specific as to the findings, but it received such wide publicity that when the legislature met the following year, the state was in a mood for action on the question. The only result was the sending of a concurrent resolution to the Minnesota Legislature requesting that it withdraw its opposition to Wisconsin inspection, revise its methods of grading and docking, and prohibit mixing at its terminal elevators.

To this the Minnesota Legislature replied that it did not officially oppose Wisconsin inspection, and that Minnesota grades did not discriminate against North Dakota grain.

Investigators Find no Fault with Minnesota Grades

An investigational committee to study terminal grain marketing was thereupon appointed by the

North Dakota Legislature. The committee's report to the governor recommended that the state of North Dakota lease and operate terminal elevators at Minneapolis and Duluth to determine the advisability of state owned terminal elevators at those markets. No criticism of inspection was offered, although dissatisfaction with inspection was the chief cause for the investigation. However, federal inspection was recommended as a solution of the situation. No tangible results came from the investigation.

An effort was then made to secure representation upon the Minnesota Boards of Grain Appeals similar to the representation given to North Minnesota Attorney-General prevented such cooperation.

However, North Dakota was given the privilege, which it accepted, of having a representative sit with the Board of Grain Appeals in an unofficial capacity to watch the inspection.

Two commissioners were appointed to study grain marketing, one at Minneapolis, and one at Duluth. They served from August 26, 1909, to December 31, 1910. Their report to the governor of North Dakota commended Minnesota inspection highly, which leads one to believe that the erroneous criticism of terminal inspection may have been due to a confusion of terminal and local marketing abuses, that the difficulty may have been with the grading at the local rather than at the terminal market.

#### Interest Shifts to Terminal Elevators

Interest now shifted to terminal elevators. Some country elevators of North Dakota considered the leasing and operating of a terminal elevator, but with their limited financial support they could not interest any grain dealers in assisting them.

Attention then shifted to state owned and operated elevators outside the state. A popular referendum in 1912 approved the action of the

legislature in 1909 in proposing state elevators at the principal markets to which North Dakota grain was shipped.

Attention then shifted to state-owned and state-operated elevators within the state, and again a popular referendum in 1914 gave its approval to such a program. The action of the legislature at its next session, however, made the program inoperative when it repealed the law providing the funds for building the elevators.

#### Non-Partisans Enact an Inspection Law

The opposition to the marketing system now assumed a new character. The thwarting of the desires of the people, as expressed in the referendum, resulted in the organization of the Non-Partisan League, which was victor in the election of 1918.

The new leaders interpreted their complete victory at the polls as a vindication of their election promises and undertook at the well-known session of the legislature in 1919 to secure the promised reforms. Among the laws that were passed to secure greater state control of the production, marketing, and credit facilities of the state, the grain inspection law and the Warehouse Receipts Act of 1917 were re-enacted to strengthen the system of state-owned terminal elevators and flour mills that were contemplated in the laws of that session.

#### Inspection at Country Markets

Without terminal markets and with no possibility of state-owned elevators and mills for several years, an inspection system of the prevailing type, which is conducted primarily for the shippers of grain, and for buyers and sellers at the large terminal markets, was of little use. The authority granted by the law was, therefore, used to create an inspection system that takes official inspection back to the small country markets.

How North Dakota Inspection is Organized

The administration of the system is left to the State Inspector of Grades who is appointed by the governor, and who must be a faculty member of the state agricultural college.

The duties of this officer correspond to those of the chief inspectors of other systems, except that he is endowed with greater authority. In addition to fixing standards, establishing rules for inspection, appointing all of the assistant and country inspectors, hearing appeals, and supervising weights and measures, he is responsible for other grain marketing activities, including the supervision of the margins that are taken by grain buyers.

The administration is indeed highly centralized and autocratic powers are conferred upon its chief officer. Farmers who buy and sell grain among themselves are exempt from the compulsory features of the law, although all persons and corporations that operate mills and elevators, that buy, store, or ship grain for a profit, must have it graded by a licensed inspector who is required to provide the grading equipment prescribed by the State Inspector of Grades and to issue a grade certificate to the seller.

In case of dispute, regarding the grade of grain, samples may be sent to the State Inspector of Grades whose decision is final.

Payment for Dockage is Compulsory

A further innovation in the American inspection system that is undertaken by this inspection department is the compulsory payment for valuable dockage at country points. (Dockage is foreign matter and other cereals that can be easily removed by equipment common in elevators and mills.)

The value of the dockage at the terminal market is reflected in the market price, but there is some question whether the imperfect competitive con-

ditions at the country points enable the producer to secure its full value when he markets his grain at the country point. In the case of cooperative marketing associations, the full value returns to the producers, as a class, but the prevailing method of determining the country price still prevents each lot of grain from receiving the true value of the dockage that it contains.

To correct this weakness, the determination of the amount and the value of the foreign material in grain is required in North Dakota, and the seller, usually the farmer, is given the option of selling the dockage at its commercial value or of having it separated from the grain at a nominal cost and returned to him.

#### Compulsory Payment for Dockage Arouses Much Opposition

Probably the enforcing of this section of the inspection law has been responsible for the creation of more opposition from the grain dealers than any other part. In many cases, grain buyers do not have the facilities for cleaning. In other cases, buyers feel, and probably often justly, that they pay the farmers all their grain is worth, including the value of the dockage. In many cases, the opposition is largely resentment to interference with private business in matters pertaining to the regulation of market values.

Compulsory payment for dockage is, nevertheless, not an inspection problem. It is rather a species of price fixing.

The function of an inspection department is to classify grain on the basis of quality and condition and to leave the creation of market value to supply and demand forces.

In judging the merits of an inspection system adapted to local marketing, the experience of compulsory payment for dockage ought, therefore, to be left out of consideration.

Law Aims to Maintain Healthy Competition

We may grant that the producers and the leaders of the Northwest under-estimated the value of the existing market system and the advantages of the terminal inspection. Still it is true that, due to imperfect competitive and even monopolistic conditions that have sometimes existed at country points, and to his inability to judge the quality of his grain according to terminal standards, the producer has not always realized the full advantages of terminal inspection.

In recognition of this fact, the North Dakota inspection law aims to create more healthy competitive conditions by providing an official opinion of the quality and condition of every load of grain when it reaches the country market, in order that the producer may have a better means of comparing the local price with the quotations of the terminal market to which his grain may ultimately go.

If every lot of grain, therefore, is sold on its merit, the present tendency to pay a flat price for all grain, irrespective of its quality, would disappear and good methods of farming would receive their proper reward.

Weakness of North Dakota Inspection Law

The weakness of the system consists in the underestimation of the efficiency of existing marketing methods. This increases the responsibility of the new inspection system by magnifying the possible gains to be derived from it. Its further weakness lies in the breadth and scope of the service, which is extended to markets that are widely scattered and far from the source of control - markets so small that specialization is scarcely possible.

The elevator managers, who constitute the principal class of country dealers, are employed for their ability to superintend the many operations

of a country warehouse, and not necessarily because they are expert inspectors of grain.

Salaries for these positions are small and they command men of limited marketing experience. These conditions make it difficult, even with traveling supervisors to aid the local buyers, to maintain uniformity of grades throughout the state and to prevent the misuse of the grade standards.

Law Declared Unconstitutional as Restraint of Trade

The inspection system is now inoperative, the United States Supreme Court having recently declared the law creating the inspection department unconstitutional on the ground that it interfered with interstate commerce. Whether or not the law will be re-enacted in such a way as to meet the constitutional test is impossible to say. At this writing (1922) a petition is being circulated in North Dakota for a referendum on the subject to be submitted to the voters at the next election.

The experience with this new type of inspection in North Dakota is too short to give any indication of its ultimate probable success. In any case, it was a part of such a comprehensive program that it is impossible to separate it from the larger movement. Its success or failure, without the constitutional objection, will be determined largely by the progress of the reform movement. In so far as it is possible to separate it from the larger movement, its success is complicated by the necessity of using the same grain standards at the terminal and country markets, whereas their methods of buying and handling grain are quite different. Moreover, unless the difficulties of wide supervision can be handled, we can hardly expect much progress in comprehensive inspection for country grain markets.

**MUST YOU SELL GRAIN ON FEDERAL STANDARDS?**

Many believe that federal inspection (to which subject the next lesson is entirely devoted) will some day almost entirely replace all other types of inspection. Consequently, it is exceedingly important that you know everything about federal inspection.

Is there any appeal from the judgment rendered by a federal inspector?

Must you sell your grain according to grade fixed by federal inspection?

Is every one who buys or every one who sells, legally bound to abide by the standards set up by the federal government?

These questions indicate to you the possibilities of misunderstanding federal inspection. They also indicate the extreme practical nature of lesson 3, for these questions and many more are clearly answered there.

### GLOSSARY OF MARKETING TERMS USED IN THIS LESSON

arbitration, n. The act of giving judgment, usually by disinterested parties, and usually by a committee containing a number of individuals. As used in this lesson, refers to the judging of the quality of grain by an arbitration committee made up of capable men officially appointed. This arbitration is asked for, as a rule, when the official inspection is not satisfactory to the owner of the grain.

bill of lading, n. A document issued by a transportation company acknowledging acceptance of goods for transportation. It is usually signed by the owner of the goods or his agent. It is evidence that the goods have been delivered to the transportation company and that the transportation company has acknowledged its responsibility to preserve and deliver the goods at the specified destination.

A "straight" bill of lading simply authorizes the carrier to deliver the goods to a specified receiver (consignee) at the destination indicated. An "order notify" or "shipper's order" bill of lading requires that an order be issued by the shipper before the delivery of the shipment can be made.

When a draft accompanies the bill of lading, the bill of lading and the draft are usually sent to a banker for the collection of the draft, in which case, the transportation company will not deliver the goods until the bill of lading is given up by the men asking for the goods. The bank, of course, is not authorized to deliver the bill of lading until the draft has been paid.

certificate of grade, A document used by an official inspector certifying to the grade of a certain quantity of goods.

contract trading, The buying and selling of contracts in which it is agreed that certain commodities will be delivered at a specified time.

dockage, n. As used in this lesson, dockage includes foreign matter in cereal grains that can be easily removed by equipment common in elevators and mills, and which foreign material has value after it is removed. This dockage usually includes other cereal grains, and weed seeds, both of which

may have a value as feed for live stock. In some cases, this material must be returned to the owner of the grain, or must be paid for; but in most states, the dockage belongs to the man who buys the grain and he makes use of it as he sees fit.

exchange inspection. Inspection authorized by an exchange and performed by a person in the employ of the exchange.

federal supervision. Supervision exercised by the authority of the national government.

future trading. The buying and selling of contracts requiring the delivery of commodities at some future time.

futures market. 1. A market where future trading is carried on. 2. Often used to refer to the prices as a whole that are being paid for future contracts.

grain exchange. A corporation whose members buy and sell grain. The corporation, as a rule, provides a place where the trading is done; it also prescribes rules for governing the members in their dealings. Exchanges are also in existence for the handling of certain products other than grain.

hedge, n or v. The process of reducing risk due to possible price changes by selling a future when a commodity is purchased or by buying a future when sale of a commodity is contracted. The hedge is usually made by buying or selling a future of the option month immediately following the time when the buyer expects to sell the commodity (grain) bought or when the seller of a commodity (flour) expects to buy wheat to fill contracts to sell flour.

plugged car. A car loaded with products of the same kind, but of radically different grade. Such loading is often done with the idea of deceiving the buyer, but is sometimes done through ignorance; often called a "set up" by the trader.

sample trading. The buying and selling of goods in which a sample of the article sold is submitted to the prospective buyer for inspection.

"set up" car. A car fraudulently loaded to deceive the buyer; usually radically different grades of the same product are loaded into the same car, the poorest grade being underneath and the best grade being on the top; a "plugged car."



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